AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Previously Presented) A method of estimating a signal-to-interference+noise ratio (SINR), comprising:

generating an initial SINR estimate based on a mean of a plurality of samples and a sample variance estimate of the plurality of samples;

scaling the initial SINR estimate; and

translating the scaled SINR estimate.

2. (Original) The method of claim 1, wherein the generating step generates the initial SINR estimate based on at least two sample variance estimates.

3. (Previously Presented) The method of claim 2, wherein the generating step generates a smoothed sampled variance estimate based on the at least two sample variance estimates, and generates the initial SINR estimate based on the smoothed sample variance estimate.

4. (Previously Presented) The method of claim 3, wherein the smoothed sampled variance estimate is generated by combining a current sample variance estimate and a previous sample variance estimate based on a smoothing factor.

5. (Original) The method of claim 4, wherein the scaling step scales the initial SINR estimate based on the smoothing factor.

6. (Original) The method of claim 5, wherein the generating step generates the smoothed sample variance estimate according to the following expression:

$$\hat{\sigma}_k^2 = (1-r)\hat{\sigma}_{k-1}^2 + rS_k^2$$

where $\hat{\sigma}_k^2$ = current smoothed sample variance estimate,

$\hat{\sigma}_{k-1}^2$ = previous smoothed sample variance estimate,

S_k^2 = current sample variance estimate, and

r = smoothing factor.

7. (Previously Presented) The method of claim 5, wherein the scaling step scales the initial SINR estimate based on the following expression:

$$\tilde{\Theta} = \frac{\eta - 2}{\eta} \hat{\Theta}$$

where $\tilde{\Theta}$ = scaled SINR estimate,

$\hat{\Theta}$ = initial SINR estimate, and

$\eta = \frac{(N-1)(2-r)}{r}$ where N = a number of the plurality of samples and r = smoothing factor.

8. (Original) The method of claim 7, wherein the translating step translates the scaled SINR estimate based on the number of the plurality of samples.

9. (Currently Amended) The method of claim 8, wherein the translating step translates the scaled SINR estimate ~~by~~based upon at least adding the number of the plurality of samples.

10. (Original) The method of claim 4, wherein the scaling step scales the initial SINR estimate based on a number N of the plurality of samples.

11. (Original) The method of claim 1, wherein the translating step translates the scaled SINR estimate based on the number of the plurality of samples.

12. (Currently Amended) The method of claim 11, wherein the translating step translates the scaled SINR estimate ~~by~~based upon at least adding the number of the plurality of samples.

13. (Original) The method of claim 1, wherein the plurality of samples are pilot symbol samples.

14. (Original) The method of claim 1, wherein the plurality of samples are data symbol samples.

15. (Previously Presented) A method of estimating a signal-to-interference+noise ratio (SINR), comprising:

generating a first initial SINR estimate based on a mean of a plurality of pilot symbol samples and an sample variance estimate of the plurality of pilot symbol samples;

scaling the first initial SINR estimate;

translating the first scaled SINR estimate;

generating a second initial SINR estimate based on a mean of a plurality of data symbol samples and an sample variance estimate of the plurality of data symbol samples;

scaling the second initial SINR estimate;

translating the second scaled SINR estimate; and

combining the first and second scaled estimates to produce a composite SINR estimate.

16. (Original) The method of claim 15, wherein the combining step weights the first and second scaled estimates and combines the weighted first and second scaled estimates to produce the composite SINR estimate.

17. (Previously Presented) The method of claim 16, wherein the weights are determined based on a bias in the first and second scaled estimates.

18. (Previously Presented) A method of estimating a signal-to-interference+noise ratio (SINR), comprising:

generating a first SINR estimate based on received pilot symbol samples;

generating a second SINR estimate based on received data symbol samples; and

combining the first and second SINR estimates to produce a composite SINR estimate,

wherein combining the first and second SINR estimates includes:

weighting the first SINR estimate according to a first weight;

weighting the second SINR estimate according to a second weight; and

combining the first and second weighted SINR estimates.

19. (Canceled)

20. (Previously Presented) The method of claim 18, wherein the first and second weights sum to unity.

21. (Previously Presented) The method of claim 18, wherein the first and second weights do not sum to unity.

22. (Previously Presented) The method of claim 18, wherein the first and second weights depend on an initial estimate of the SINR.

23. (Previously Presented) The method of claim 18, wherein the first weight depends on a bias and variance of the first SINR estimate and the second weight depends on a bias and variance of the second SINR estimate.

24. (Previously Presented) The method of claim 18, wherein

generating the first SINR estimate step includes,

generating a first initial SINR estimate based on a mean of a plurality of pilot symbol samples and a sample variance estimate of the plurality of pilot symbol samples,

scaling the first initial SINR estimate, and

translating the first scaled SINR estimate; and

generating the second SINR estimate step includes,

generating a second initial SINR estimate based on a mean of a plurality of data symbol samples and a sample variance estimate of the plurality of data symbol samples,

scaling the second initial SINR estimate, and

translating the second scaled SINR estimate.